

WHAT IS CLAIMED IS:

- 1 1. A system of binding sheets into a bound text body, comprising:
2 a multi-function sheet binder configured to heat a preformed solid hot melt
3 adhesive to a melting temperature, form the melted adhesive by pressing the melted
4 adhesive into a spine of a text body and folding down edges of the melted adhesive
5 into contact with the text body, and actively cool the formed adhesive.
- 1 2. The system of claim 1, wherein the multi-function sheet binder
2 comprises a tool carrier having separate sides respectively supporting an adhesive
3 heater tool, an adhesive former tool and an adhesive cooler tool.
- 1 3. The system of claim 2, wherein the tool carrier is rotatable about an
2 axis so that the separate tools of the tool carrier respectively may be positioned to act
3 upon a preformed solid hot melt adhesive disposed over the text body spine.
- 1 4. A system of binding sheets into a bound text body, comprising:
2 a spot heater configured to heat one or more localized areas of a solid hot
3 melt adhesive to a temperature sufficient to tack the hot melt adhesive to a text body
4 spine.
- 1 5. The system of claim 4, wherein the spot heater comprises an elongated
2 clamp supporting one or more spaced apart heating elements.
- 1 6. The system of claim 4, further comprising a solid hot melt adhesive
2 dispensing system incorporating the spot heater and configured to dispense a solid
3 hot melt adhesive over the text body spine and to cut dispensed adhesive to width.
- 1 7. A system of binding sheets into a bound text body, comprising:
2 an adhesive former configured to press a localized region of a preformed
3 heated solid hot melt adhesive into a spine of a text body and to fold down edge
4 regions of the preformed solid hot melt adhesive into contact with the text body.

1 8. The system of claim 7, wherein the adhesive former comprises a
2 compliant roller configured to press the localized region of the preformed heated
3 solid hot melt adhesive into the text body spine.

1 9. The system of claim 7, wherein the adhesive former comprises a pair of
2 pinch rollers configured to fold down edge regions of the preformed solid hot melt
3 adhesive into contact with the text body.

1 10. The system of claim 7, wherein the adhesive former is configured to
2 traverse the text body spine.

1 11. A method of binding sheets into a bound text body, comprising:
2 advancing over a preformed solid hot melt adhesive disposed over a spine of a
3 text body a multi-function sheet binder comprising a tool carrier having separate
4 sides respectively supporting an adhesive heater, an adhesive former and an
5 adhesive cooler;
6 heating the preformed solid hot melt adhesive to a melting temperature with
7 the adhesive heater;
8 forming the melted adhesive with the adhesive former by pressing the melted
9 adhesive into the text body spine and folding down edges of the melted adhesive into
10 contact with the text body; and
11 cooling the formed adhesive with the adhesive cooler.

1 12. The method of claim 11, wherein the preformed solid hot melt adhesive
2 is heated, formed and cooled by rotating into position a respective side of the tool
3 carrier.

1 13. The method of claim 11, wherein a localized region of the melted
2 adhesive is formed and, subsequently, remaining regions of the melted adhesive are
3 formed

1 14. The method of claim 11, wherein, before the multi-function sheet
2 binder is advanced over the solid hot melt adhesive:
3 a solid hot melt adhesive is dispensed over a spine of a text body;

4 one or more localized areas of the dispensed adhesive are heated to a
5 temperature sufficient to tack the hot melt adhesive to the text body spine; and
6 the tacked adhesive is cut to width.

1 15. A method of binding sheets into a bound text body, comprising:
2 dispensing a solid hot melt adhesive over a spine of a text body;
3 heating one or more localized areas of the dispensed adhesive to a
4 temperature sufficient to tack the hot melt adhesive to the text body spine; and
5 cutting the tacked adhesive to width.

1 16. The method of claim 15, further comprising heating the cut adhesive to
2 a melting temperature.

1 17. The method of claim 16, further comprising forming the melted
2 adhesive by pressing the melted adhesive into the text body spine and folding down
3 edges of the melted adhesive into contact with the text body.

1 18. The method of claim 17, wherein a localized region of the melted
2 adhesive is formed and, subsequently, remaining regions of the melted adhesive are
3 formed.

1 19. A method of binding sheets into a bound text body, comprising:
2 forming a localized region of a preformed heated solid hot melt adhesive by
3 pressing the localized adhesive region into a spine of a text body and folding down
4 into contact with the text body edge regions of the preformed solid hot melt adhesive
5 adjacent to the localized region;
6 subsequently forming remaining regions of the preformed solid hot melt
7 adhesive to the text body spine.

1 20. The method of claim 19, wherein the localized region of the heated
2 adhesive is formed to a centrally located region of the text body spine.